



ZyXEL



**Inspire Smart
Digital Lifestyle!**

Consumer
Product Guide

- Turn Living Room into a Home Theatre
- Organize Your Multimedia at Your Fingertips
- Enjoy Music in Every Room
- Have Fun Wherever You Are





Eco-Friendly. We Do More.

More than just being a company with “green” in mind, ZyXEL commits itself to be the world’s leading global Internet access solution provider while doing its best for the environment by developing eco-friendly products. ZyXEL provides customers with a full range of reliable end-to-end networking solutions that are not only easy-to-use, but also cost-performance, energy-efficient and environment-friendly. With the most needed technologies integrated into one device, ZyXEL solutions bring smart, convenient and efficient digital lifestyle to our valued customers for less time and energy.

With smart plug-and-play design, ZyXEL’s products simplify the process of building home multimedia networks and fit perfectly into every home. Through the user-friendly interface and one-touch button, users can easily customize network setting. And the intelligent energy-saving mechanism of ZyXEL products also helps reduce energy waste and protect our environment.

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3

Relaxing Leisure

Enjoy Music in Every Room

With ZyXEL's Wireless Adapters, you can enjoy your favorite music everywhere in the house. Use your iPad or laptop as a portable media player indoors or outdoors, and access Internet radio stations or music stored on a ZyXEL Media Server.



Simple Sharing

Have Fun Wherever You Are

With ZyXEL's wired and wireless network products, you can freely enjoy Web surfing and network gaming anywhere at home. Since the embedded Quality of Service (QoS) technology ensures smooth delivery of gaming, video and VoIP, the most important applications get the highest priority as you prefer.

- W** Wireless Adapter, Access Point
- D** Digital Media Adapter
- P** Wired LAN Adapter
- R** Router
- S** Media Server



Efficient Simplification

Organize Media at Your Fingertips

The ZyXEL Media Server makes it easy to access, share and enjoy music and videos from any DLNA-compatible media players. With a user-friendly interface, the ZyXEL Media Server enables users to set up time-consuming tasks such as uploading/downloading and backing up files with just a few clicks.

Effortless Entertainment

Turn Living Room into a Home Theatre

No matter where the PC, network storage appliances and HDTV are located, you can share all your movies, videos and photos easily with the ZyXEL Digital Media Adapter. The ZyXEL Wired LAN Adapters and Wireless Access Points allow you to upgrade the current broadband network and enjoy home entertainment through the existing electrical wiring already in the house!



1 Effortless Entertainment

Turn Living Room into a Home Theatre

Turning your living room into a home theatre is no longer a fantasy. With the high-performance wireless routers and wireless media streaming box as the home connectivity backbone, the ZyXEL digital home entertainment solutions, including the media server and digital media adapter, have opened a new era of sensational enjoyments. With ZyXEL's powerful media streaming solutions, you can build a lag-free home video network for ultimate visual enjoyment in a snap.

Supporting a wide range of file formats, the ZyXEL Digital Media Adapter ideally supplements home networks and delivers high-resolution images, movies or music from the home PC or media servers to television screens or stereo systems; so you can create a home theatre that meets their own style and personal taste.

Home Entertainment Application



NBG5715
Dual-Band Wireless N
Gigabit Router



NSA320
2-Bay Power
Media Server



DMA2501
Full HD Digital
Media Streamer



WAP5605
5-GHz Wireless N
Media Streaming Box



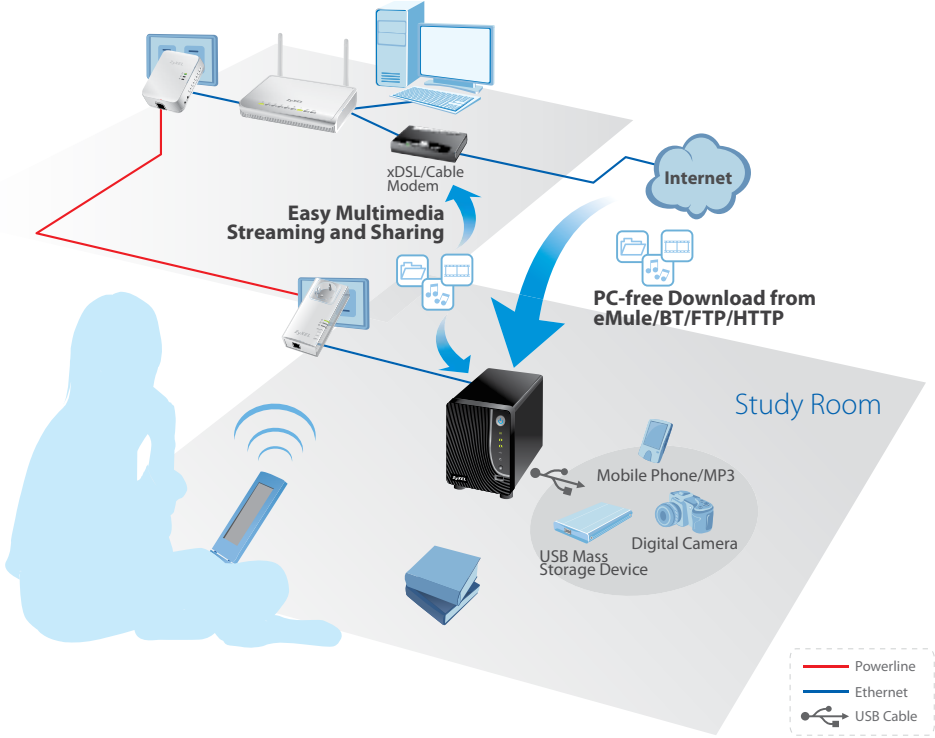
2 Efficient Simplification

Organize Your Multimedia at Your Fingertips

Simplify multimedia management with ZyXEL's integrated home network solution. With high performance, efficient bandwidth management features and a friendly user interface, the ZyXEL Routers can perform as smart central hubs for the home network to provide sufficient bandwidth instantly, safeguard broadband access to the Internet, allocate all devices on the network immediately and connect them to each other. Add a pair of ZyXEL Powerline Ethernet Adapters, and you'll have an easily extendable home network without any hassle.

Combine a ZyXEL Router and a Media Server designed as a centralized file repository on the home network, and you can easily organize and share all the files without powering on your PC. Also, the photos or videos placed on the media server can be uploaded to Flickr or YouTube automatically and shared in minutes.

Media Management Application



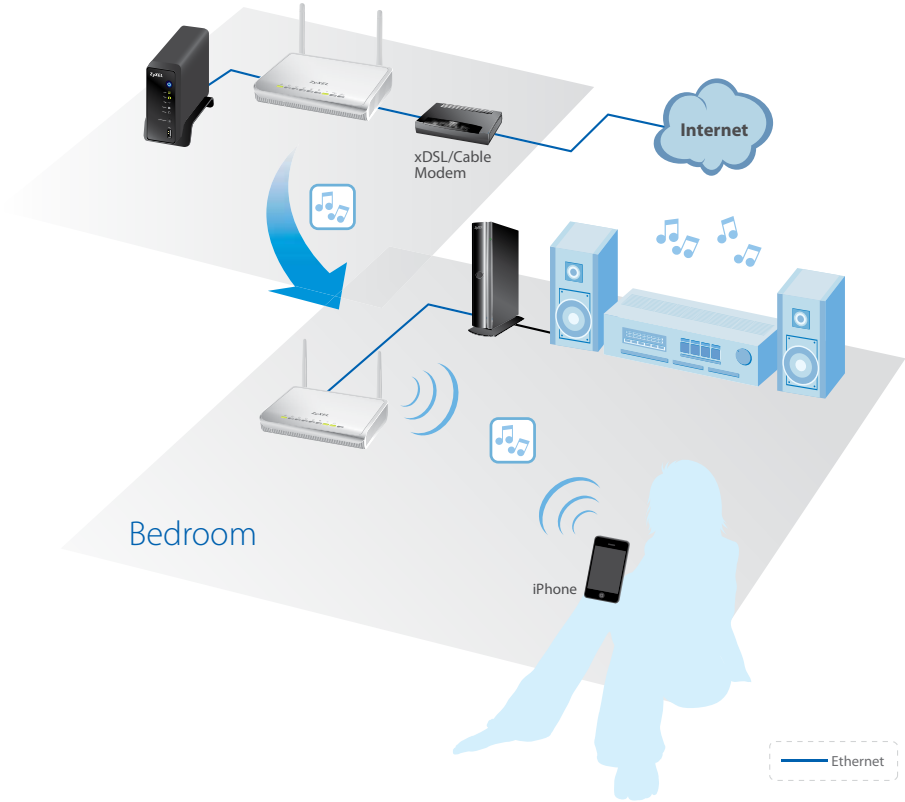


3 Relaxing Leisure

Enjoy Music in Every Room

Deliver music from the box to every room! Through a Digital Media Controller (DMC)-capable device such as iPhone that acts as a remote control for the ZyXEL Digital Media Adapter, you can play music stored on a ZyXEL Media Server in the study room directly to the DLNA-capable stereo or TV in the bedroom without even turning on your PC; or just use the iPhone as a media player to browse and playback the music stored on the media server over the wireless home network. Connected with wired devices, the ZyXEL Wireless Access Point performs as a wireless extender to deliver high-speed broadband coverage to the entire house.

Music Streaming Application



WAP3205
Wireless N
Access Point



NBG4615
Wireless N Gigabit
NetUSB Router



NSA210
1-Bay Digital
Media Server



DMA2501
Full HD Digital
Media Streamer



4

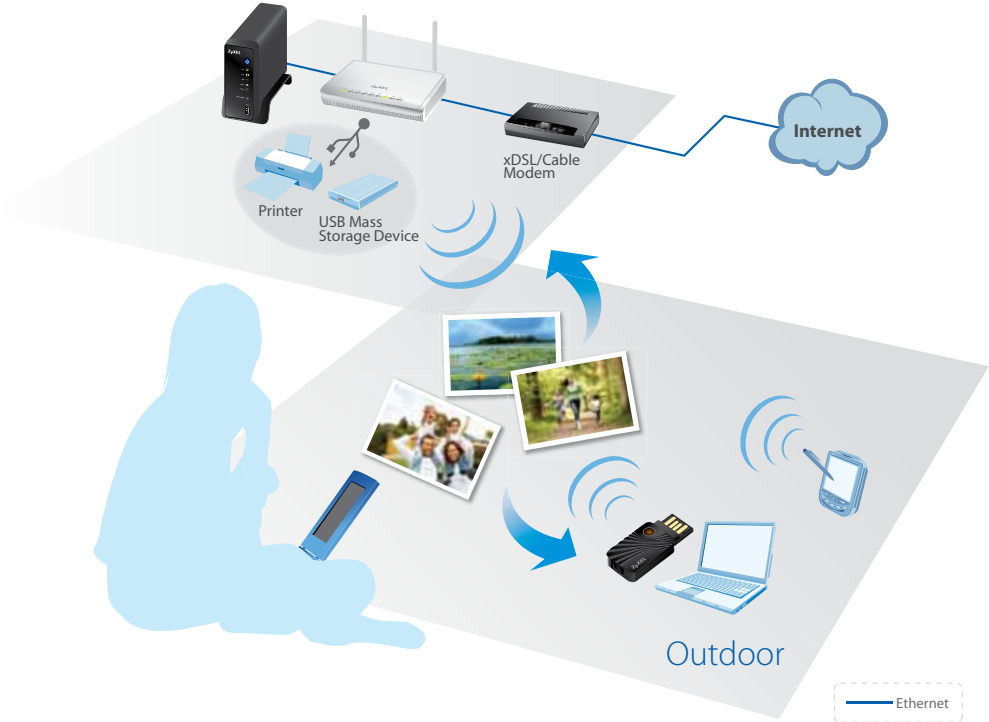
Simple Sharing

Have Fun Wherever You Are

Share with friends and family throughout the home, even on the patio! ZyXEL's wireless solution provides wide coverage and shared contents smoothly. You can easily share photos stored on your media servers or PC through handheld devices such as iPods connected to the wireless home network. Photos and videos taken in family trips or your children's birthday parties can be streamed immediately to the outside gatherings with friends; or you can just plug a ZyXEL Wireless USB Adapter to your laptop to play the music, photos and videos stored in the network storage appliances through your laptop.

For even more convenient sharing, just plug USB devices such as printers or USB mass storage devices into the ZyXEL Router, and you can freely access the files stored in USB mass storage or print the files wirelessly without being constrained by the location.

Multimedia Sharing Application



NWD2205
Wireless N
USB Adapter



NBG4615
Wireless N Gigabit
NetUSB Router



NSA210
1-Bay Digital
Media Server



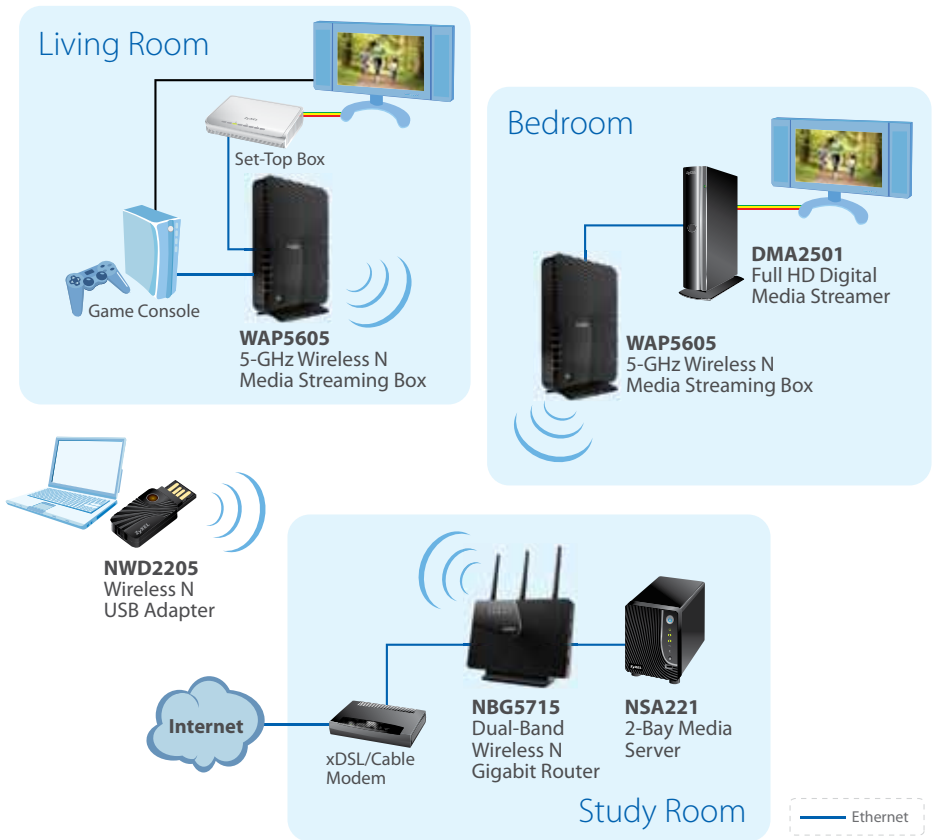
Wireless Router & Client — Easily Upgrade Wireless Connectivity for Multimedia Streaming

To elevate your real-time enjoyment of multimedia applications, the combination of a high-performance router and advanced wireless adapters makes an efficient solution for setting up a network in minutes without complicated wiring. In order to fulfill the increasing demand for high-quality multimedia streaming, ZyXEL's complete 802.11n series can boost wireless data transfer rates to up to 450 Mbps*. Through the friendly user interface of ZyXEL's Router series, users can easily configure networked devices to their usage patterns.

As a centralized home network hub, ZyXEL Routers can share and utilize network resources efficiently. Equipped with USB ports, the ZyXEL Router can share not only the 3/3.5G wireless network anywhere, but also all USB-equipped networked devices such as printers and USB storages on the home network.

ZyXEL Routers have rich green features that provide power-saving benefits without compromising performance. To reduce unnecessary wireless radiation for a more eco-friendly network environment, the wireless scheduler and output power management features enable you to smartly manage the wireless network environment. Even easier, you can just click the Wireless On/Off or Power On/Off switch to save energy when home network is not in use.

Wireless Home Network



* The wireless data transfer rate is the theoretical data transfer rate. The actual data transfer rate may vary depending on the network environment.

Digital Home Product Series

Benefits of Wireless Router & Client



Friendly User Interface

With a user-friendly interface, ZyXEL Routers provide an “Easy Mode” for basic setup, and it also provides a comprehensive network map. The Easy Mode simplifies system configuration tasks, so you can enable or disable frequently used options such as Game Engine, Power Saving, Content Filtering or Bandwidth Management. Just click the On/Off icon to activate the Game Engine function and then you can enjoy smooth gaming experience for Xbox 360 or PlayStation, etc. If you are not into games, just click the Bandwidth MGMT icon to prioritize your favorite network applications; simple drag-and-drop of the network application icons is all it takes to adjust the priority. For advanced setup, “Expert Mode” provides full setup options for further configurations.



Network map shows you devices on your home network



Just drag and drop to prioritize the network application as you wish.

Easily configure the wireless schedule



Just One Click for Easy Setup



Ensure smooth gaming experience

Make your own URL blocking list

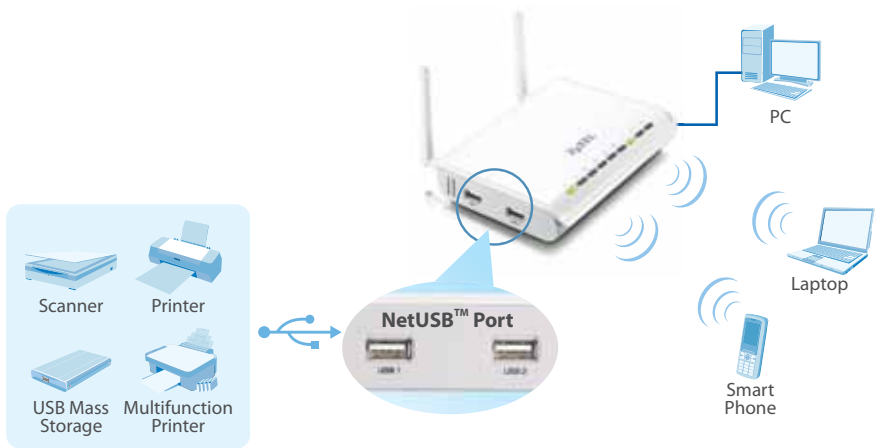
Enable firewall to protect your computer

Enable and disable common-use features with a simple click



NetUSB™ Shares USB Devices Wirelessly

With NetUSB™ support, the ZyXEL Routers allow users to share remote USB devices over the home network as if the devices were connected directly to each other's local PC. You can just plug USB devices such as printers and USB mass storage devices to the USB ports of ZyXEL Routers and access them in every room. It's very convenient for you to share USB devices with your family wirelessly.



Whole-home Media Enjoyment

Thanks for the newest beamforming technology, the ZyXEL Router and Media Streaming Box can greatly extend wireless coverage and eliminates dead spots in the home network. The new-generation wireless N router and wireless access point can learn from environmental conditions to dynamically alter transmission patterns thus at least doubling the coverage compared to legacy products. No matter where you are in the house, the ZyXEL Router and Media Streaming Box provide an optimized visual experience for you to enjoy high-quality video streaming with whole-home wireless coverage.



NBG5715 Dual-Band Wireless N Gigabit Router



Ultimate Dual-Band Wireless Performance for Media Streaming

- 802.11n compliance with dual band (2.4 GHz and 5 GHz) and 450 Mbps* data transfer rate for ideal media streaming environments
- Beamforming technology widely extends the effective wireless coverage
- Gigabit Ethernet ports allow higher wire speed to enhance media transfer efficiency
- Friendly user interface for fast function navigation and set up
- 2 NetUSB™ ports for sharing the printers and USB mass storages wirelessly
- 5 IPsec VPN tunnels for secure data transfer between home networks and remote sites
- Green product with wireless and power on/off switch for energy saving



NBG4615 Wireless N Gigabit NetUSB Router



Extreme Wireless Performance and Dead Spot-free Coverage

- 802.11n compliance with data transfer rates of up to 300 Mbps*
- Wireless N Gigabit router with powerful routing performance
- Configurable QoS ensures smooth delivery of most important user activities according to the user-defined priorities
- Friendly user interface for fast function navigation and setup
- 2 NetUSB™ ports share the printers and USB mass storages wirelessly
- Universal repeater mode makes it easy to extend wireless network coverage
- Green product with wireless and power on/off switch for energy saving
- Online auto firmware upgrade service for convenient feature enhancements



NBG4115 Wireless N-lite 3G Router



Optimizes Network Mobility and Sharing

- 802.11n compliance with data transfer rates of up to 150 Mbps*
- 1 USB port for 3G/3.5G dongles as WAN connection backup
- NetUSB™ support for sharing printers and USB mass storages wirelessly
- Configurable QoS ensures smooth delivery of most important user activities according to the user-defined priorities
- Automatic Fail-over/Fail-back feature provides a backup connection for stable network connectivity



WAP3205 Wireless N Access Point



Upgrade Wireless Speed and Extend Network Coverage

- 802.11n compliance with data transfer rates of up to 300 Mbps*
- Easy to extend the wireless network coverage
- 5-in-1 operation modes: access point, WLAN Client, WLAN bridge, WDS repeater and universal repeater
- Multiple SSID for separating access privileges
- WPS button for quick and easy wireless security setup
- Secure wireless communications with WEP/WPA/WPA2

* The wireless data transfer rate is the theoretical data transfer rate. The actual data transfer rate may vary depending on the network environment.



WAP5605

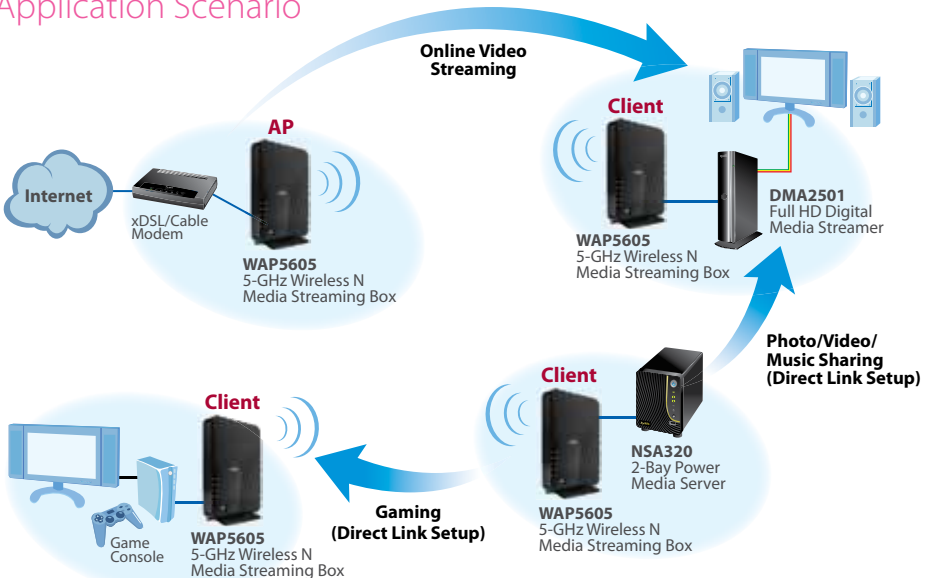
5-GHz Wireless N Media Streaming Box



Enhance Media Streaming with Extreme Wireless Coverage

- 5-GHz Wireless N compliant for ideal multimedia streaming environment with data transfer rates of up to 300 Mbps*
- Beamforming technology widely extends up to 4 times the effective wireless coverage
- Advanced QoS feature suite offers a profoundly stable video streaming quality
- 802.11z standard (Direct Link Setup) support provides client-to-client communication and reduces bandwidth consumption
- Gigabit Ethernet interface provides non-bottleneck wire speed access
- AP/Client/Repeater** mode for easy setup and control
- LED light on/off button for better fitting living room environments

Application Scenario





NWD2205 Wireless N USB Adapter



Upgrade Wireless Connection in a Green Way

- Ultra-compact design for optimal portability
- Latest 802.11n compliance with data transfer rates of up to 300 Mbps*
- Soft AP feature for sharing wireless Internet access
- Wi-Fi WMM certified for prioritizing multimedia streaming
- One-touch WPS button for easy wireless security setup
- Energy-saving wireless adapter with automatic output power adjustment and power-saving mode



NWD2105 Wireless N-lite USB Adapter



Make it Easy to Connect to Wireless Network

- Ultra-compact design for optimal portability
- Latest 802.11n compliance with data transfer rates of up to 150 Mbps*
- Soft AP feature for sharing wireless Internet access
- Support multiple applications with WMM QoS
- One-touch WPS button for easy wireless security setup

* The wireless data transfer rate is the theoretical data transfer rate. The actual data transfer rate may vary depending on the network environment.
** Future release

Digital Home Product Series

Router Feature Matrix

Model	NBG5715	NBG4615	NBG4604***	NBG-460N
				
Description	Dual-Band Wireless N Gigabit Router	Wireless N Gigabit NetUSB Router	Wireless N Gigabit Managed Router	Wireless N Gigabit Router with VPN
WLAN Feature				
Wireless Data Transfer Rate*	450 Mbps	300 Mbps	300 Mbps	300 Mbps
Wi-Fi Standard				
Dual-Band Support	2.4/5 GHz concurrent	-	-	-
WMM QoS	Yes	Yes	Yes	Yes
Wireless Scheduler	Yes	Yes	Yes	Yes
Output Power Management	Yes	Yes	Yes	-
WEP/WPA/WPA2	Yes	Yes	Yes	Yes
Hardware				
WAN/LAN Ports	1/4 (Gigabit)	1/4 (Gigabit)	1/4 (Gigabit)	1/4 (Gigabit)
USB Port	2	2	-	-
Detachable Antenna	3	2	2	3
WPS Button	Yes	Yes	Yes	Yes
Wireless On/Off Switch	Yes	Yes	-	-
Power On/Off Switch	Yes	Yes	-	-
System Features				
NetUSB™ Support	Yes	Yes	-	-
Access Point Mode	Yes	Yes	Yes	Yes
Client Mode	-	-	-	-
Universal Repeater Mode	Yes**	Yes	-	-
Auto-IP Change	Yes**	Yes	-	-
Online Auto-Upgrade Firmware	Yes**	Yes	-	-
NAT	Yes	Yes	Yes	Yes
DHCP Client/Server	Yes	Yes	Yes	Yes
Static DHCP, PPPoE, PPTP	Yes	Yes	Yes	Yes
IGMP v1/v2	Yes	Yes	Yes	Yes
SPI/DoS Firewall Security	Yes	Yes	Yes	Yes
IPSec VPN	5	-	-	2
QoS Type	Port-based QoS	Port-based QoS	Port-based QoS	MBM v2
Others	-	IPv6 pass-through	TR-069	-
Works Best with	NWD-211AN NWD2205 NWD-310N	NWD-211AN NWD2205 NWD-310N	NWD-211AN NWD2205 NWD-310N	NWD-211AN NWD2205 NWD-310N

* The wireless data transfer rate is the theoretical maximum data transfer rate. The actual data transfer rate may vary depending on the network environment.

** Future release

*** NBG4604 is for service providers/telcos. Please visit www.ZyXEL.com for more product information.

Digital Home Product Series

Router Feature Matrix

NBG-419N	NBG-417N	NBG-416N	NBG4115	NBG-334W	P-334
					
Wireless N Home Router	Wireless N-lite Home Router	Wireless N-lite Home Router	Wireless N-lite 3G Router	802.11g Wireless Firewall Router	Broadband Firewall Router
300 Mbps	150 Mbps	150 Mbps	150 Mbps	54 Mbps	-
					-
-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-
Yes	Yes	Yes	Yes	-	-
Yes	Yes	Yes	Yes	-	-
Yes	Yes	Yes	Yes	Yes	-
1/4	1/4	1/4	1/2	1/4	1/4
-	-	-	1	-	-
2	1	1	1	1	-
Yes	Yes	Yes	Yes	Yes	-
Yes	-	-	-	-	-
-	-	-	-	-	-
-	-	-	Yes	-	-
Yes	Yes	Yes	Yes	Yes	-
-	-	Yes**	-	-	-
-	-	Yes**	-	-	-
Yes	Yes	Yes**	Yes	-	-
Yes	-	Yes**	Yes**	-	-
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes**	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
-	-	-	-	-	2
Port-based QoS	Port-based QoS	Port-based QoS**	Port-based QoS	MBM v2	MBM
-	-	Auto-adjust power consumption by detecting link status and cable length	3G/Ethernet WAN Fail over/Fail back	-	-
NWD-211AN NWD2205 NWD-310N	NWD2105 NWD-310N	NWD2105 NWD-310N	NWD2105 NWD-310N	G-202 G-302 v3	-

Digital Home Product Series













Wireless Access Point Feature Matrix

Model	WAP5605	WAP3205
		
Description	5-GHz Wireless N Media Streaming Box	Wireless N Access Point
WLAN Features		
Wireless Data Transfer Rate*	300 Mbps	300 Mbps
Wi-Fi Standard		
Beamforming Support	Yes	-
Wireless Scheduler	Yes	Yes
Output Power Management	Yes	Yes
802.1e/WMM QoS	Yes	-
WEP/WPA/WPA2	Yes	Yes
802.11z Direct Link Setup	Yes	-
Hardware		
Ethernet Ports	2 (10/100/1000 Mbps)	2 (10/100 Mbps)
Antenna	4 internal antennas	2 detachable antennas
AP/Client Mode Switch	Yes	-
LED On/Off Switch	Yes	-
Power On/Off Switch	Yes	-
WPS Button	Yes	Yes
Reset Button	Yes	Yes
System Features		
Operation Mode		
AP Mode	Yes	Yes
Client Mode	Yes	Yes
Bridge Mode	-	Yes
WDS Repeater	-	Yes
Universal Repeater	-	Yes
Multiple SSID	Yes	Yes
MAC Filtering	Yes	Yes
IGMP Snooping	Yes	Yes
DHCP Client	Yes	Yes

* The wireless data transfer rate is the theoretical maximum data transfer rate. The actual data transfer rate may vary depending on the network environment.

Digital Home Product Series

Wireless Client Feature Matrix

Model	NWD-211AN	NWD2205	NWD2105	G-202	NWD-310N	G-302 v3
						
Description	Dual-Band Wireless N USB Adapter	Wireless N USB Adapter	Wireless N-lite USB Adapter	Wireless 11g USB Adapter	Wireless N PCI Adapter	Wireless 11g PCI Adapter
WLAN Features						
Wireless Data Transfer Rate*	300 Mbps	300 Mbps	150 Mbps	54 Mbps	300 Mbps	54 Mbps
Wi-Fi Standard						
Radio Band	2.4 GHz or 5 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz
WMM QoS	Yes	Yes	Yes	Yes	Yes	-
WEP/WPA/WPA2**	Yes	Yes	Yes	Yes	Yes	Yes
Soft AP	Yes	Yes	Yes	Yes***	-	-
Automatically Adjust Wireless Output Power	-	Yes	-	-	-	-
Power-saving Mode when Link Inactive	-	Yes	-	-	-	-
Hardware						
WPS Button	Yes	Yes	Yes	-	Yes	-
OS Support	Windows 2000/ XP/Vista/7 MAC OS 10.3/10.4/10.5	Windows XP/ Vista/7 MAC OS 10.4/10.5/10.6	Windows 2000/ XP/Vista/7 MAC OS 10.3/10.4/ 10.5/10.6	Windows 2000/ XP/Vista/7	Windows 2000/ XP/Vista/7 Linux (Kernel 2.4/2.6)	Windows 2000/ XP/Vista/7

* The wireless data transfer rate is the theoretical maximum data transfer rate. The actual data transfer rate may vary depending on the network environment.

** Per 802.11n specification, WEP and TKIP encryption doesn't operate under 802.11n mode.

*** Soft AP feature of G-202 doesn't support on Windows Vista/7 OS.

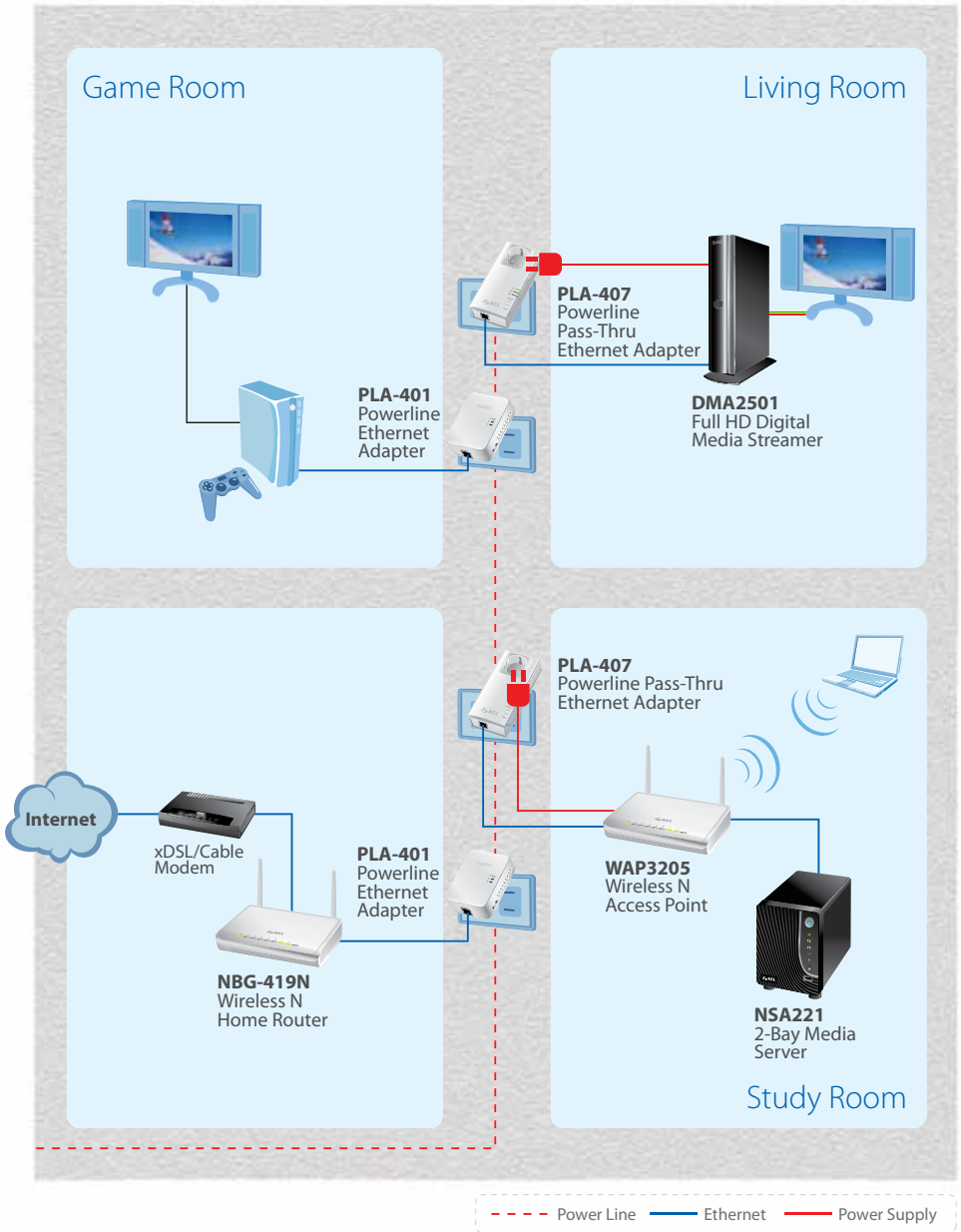


Wired LAN Adapter — Turn Your Power Lines into Smart Home Network

To build a home network with minimum effort and cost, the ZyXEL Wired LAN Adapter is your choice. In many cases, Ethernet is just not available in places where network connectivity is needed; however almost every room at home has power circuitry or coaxial network already installed, which can be used to connect home networked devices for various multimedia applications, and it is a simple way to extend network connections from your broadband router.

Complying with the HomePlug AV and HomePNA standards, the ZyXEL Wired LAN Adapter series provides networking environments with ubiquitous, fast, stable and safe data transmission. Moreover, the green features also offer an energy-saving networking solution without compromising performance.

Powerline Home Network



Digital Home Product Series

Benefits of Wired LAN Adapter



Plug-and-Play Design

Just plug a powerline device that links to a broadband modem into the power outlet in one room, and plug another linking to a PC or any Ethernet device in the other, you can then easily and instantly connect to the network without laying complicated wires.



QoS for Home Multimedia Streaming

The advanced QoS features built into HomePlug AV are ideal for in-house distribution of HDTV and VoIP streaming. Through prioritizing concurrent video, audio and data applications, QoS can effectively improve the transmission performance.



Green for Energy Saving

With a commitment to being "green", ZyXEL's new-generation Powerline Ethernet Adapters can reduce power consumption by up to 30% comparing to the previous generation of products*. Furthermore, the energy-saving mode can slash power waste by up to 60% comparing to other adapters without this feature* when no Ethernet link is present.

** The actual saving of power consumption varies from model to model.*



Easy Security Set Up

The transmission via ZyXEL's HomePlug Series is protected by 128-bit AES encryption to provide secure connections to the Internet. Just push the encryption button, and it takes only minutes to set up a secure network without complicated procedures or lengthy call to the help desk.



Noise Filter for Stable Networks

With a built-in noise filter, the ZyXEL Powerline Ethernet Adapter can suppress noise interference level down to 1/1000 and optimize powerline communication performance. The noise filter can effectively reduce noise generated by the surrounding electronic equipment, such as lamps or mobile phone chargers plugged into the power outlets, to ensure clean and stable signal quality on the powerline network.



PLA-407 Powerline Pass-Thru Ethernet Adapter



Powerline Ethernet Adapter with Extra Plug for Convenient HD Video Streaming

- Plug-and-play design for quick data transfer rate boost of up to 200 Mbps*
- Connects to powerline networks and provides additional power outlets
- Built-in noise filter reduces interference
- QoS enhances high-definition video streaming
- Power-saving mode reduces energy consumption
- Encryption button for easy network security setup
- Multi-colored LED indicates powerline network quality



PLA-401 Powerline Ethernet Adapter



Power-saving Powerline Adapter for HD Video Streaming

- Plug-and-play design for quick data transfer rate boost of up to 200 Mbps*
- QoS enhances high-definition video streaming
- Power-saving mode reduces energy consumption
- Encryption button for easy network security setup
- Multi-colored LED indicates powerline network quality

* The data transfer rate is theoretical data transfer rate. The actual data transfer rate may vary depending on quality of electrical installation.

Digital Home Product Series

Wired LAN Adapter Feature Matrix




Model	PLA-407	PLA-402	PLA-401
			
Description	Powerline Pass-Through Ethernet Adapter	Powerline Coaxial Ethernet Adapter	Powerline Ethernet Adapter
System Overview			
Standard	HomePlug AV	HomePlug AV	HomePlug AV
PHY Rate*	200 Mbps	200 Mbps	200 Mbps
Key Features			
Plug & Play Design	Wallmount type	Desktop type	Wallmount type
QoS	Yes	Yes	Yes
Built-in Noise Filter	Yes	Yes	-
Security Encryption	128-bit AES	128-bit AES	128-bit AES
LED Indicators to Identify Network Performance	Yes	Yes	Yes
Energy-Saving Mode	Yes	Yes	Yes
Dynamic Neighbor Network Support	Yes**	-	Yes**
Hardware			
Ethernet Port	1 (10/100 Mbps)	1 (10/100 Mbps)	1 (10/100 Mbps)
Coaxial Port	-	1	-
Power Outlet	1	-	-
Encryption Button	Yes	Yes	Yes

* The data transfer rate is the theoretical maximum data transfer rate. The actual data transfer rate may vary depending on the network environment.

** Future release

Digital Home Product Series

Wired LAN Adapter Feature Matrix

PL100	PLX-111	HLA3105
		
Powerline Ethernet Adapter	Powerline Network Filter	HomePNA 3.1 Coax Ethernet Bridge
HomePlug Turbo	HomePlug UPA, CEPCA	HomePNA 3.1
85 Mbps	-	320 Mbps
Desktop type	Wallmount type	Desktop type
-	-	Yes
-	Yes	Yes
56-bit DES	-	128-bit AES
-	-	Yes
-	-	-
-	-	-
1 (10/100 Mbps)	-	1 (10/100 Mbps)
-	-	2
-	1	-
-	-	-



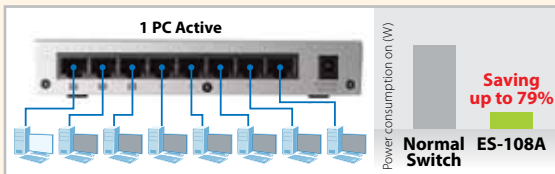
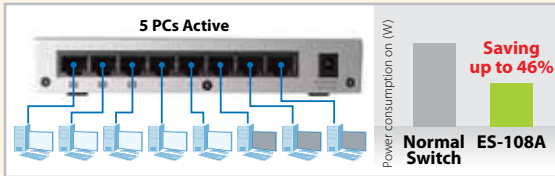
Desktop Switch— Plug and Play for Home Network Setup

With the plug-and-play design, the ZyXEL Desktop Ethernet Switches make it easy to connect networked devices such as PCs, networked storages and print servers to your home network; and the “green” solutions allow all ZyXEL Desktop Ethernet Switches to provide power-saving benefits without compromising performance by automatically reducing power usage when a shut down network device or inactive link is detected. In addition, they automatically detect the length of connected Ethernet cables and adjust power usage accordingly. The shorter the Ethernet cable length, the less power it consumes.

Reduce Power Usage When Link Inactive



Adjust Power Usage

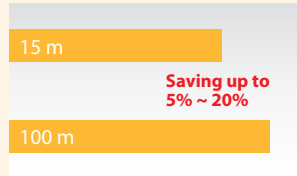


* The power consumption saving for each model varies with the actual number of active connected devices and the cable length.

Energy Savings by Detecting Cable Length



Detect Cable Length












■ Power Consumption



Digital Home Product Series

Desktop Switch Feature Matrix

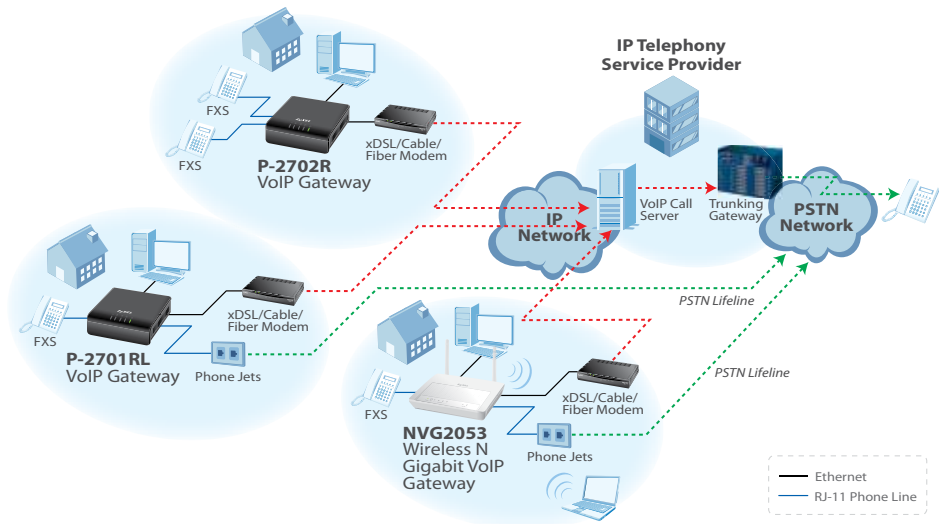
Model	GS-105B	GS-108B	ES-105A	ES-108A	ES-108P	ES-105S	ES-108S
							
Description	5-Port Desktop Gigabit Ethernet Switch	8-Port Desktop Gigabit Ethernet Switch	5-Port Desktop Fast Ethernet Switch	8-Port Desktop Fast Ethernet Switch	8-Port Desktop Fast Ethernet Switch	5-Port Desktop Fast Ethernet Switch	8-Port Desktop Fast Ethernet Switch
Case	Metal	Metal	Metal	Metal	Metal	Plastic	Plastic
Green Features	Power saving by detecting link status and cable length						
Port Density & Key Features							
10/100 Mbps Ethernet Ports	-	-	5	8	8	5	8
10/100/1000 Mbps Ethernet Ports	5	8	-	-	-	-	-
QoS Ports	-	-	2	3	-	-	-
Auto MDI/MDI-X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Store and Forward	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Full Duplex Capability	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flow Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Performance							
Switching Capacity	10 Gbps	16 Gbps	1.0 Gbps	1.6 Gbps	1.6 Gbps	1.0 Gbps	1.6 Gbps
Mac Address	8K	8K	2K	1K	1K	2K	1K
Memory Buffer	128 KB	128 KB	48 KB	96 KB	96 KB	48 KB	96 KB
Jumbo Frames	Up to 9 KB	Up to 9 KB	-	-	-	-	-

Model	GN680-T	FN312
		
Description	Gigabit Ethernet PCI Adapter	Fast Ethernet PCI Adapter
Hardware		
Ethernet Port	1 (10/100/1000 Mbps)	1 (10/100 Mbps)
PCI Bus Architecture	V 2.1/2.2, 32 bit 33/66 MHz	V 2.1/2.2, 32 bit 33/66 MHz
Port Density & Key Features		
Auto MDI/MDI-X	Yes	Yes
Flow Control	Yes	Yes
Nway Auto-negotiation	Yes	Yes
IEEE 802.1Q VLAN Tagging	Yes	Yes
IEEE 802.1p Priority Queue	Yes	Yes
ACPI Wake-on-LAN	Yes	Yes
Jumbo Frames	Yes, up to 7 KB	-





VoIP Gateway— Integrating Voice & Data Networks

Designed for SOHO and home users, ZyXEL's VoIP Gateway offers crystal-clear voice quality and a rich call feature set to fulfill users' VoIP needs. It also offers great flexibility to deliver triple-play services to homes. With the built-in FXS ports and FXO port, ZyXEL's VoIP Gateway can provide a wide range of VoIP services. Simply plug the Ethernet cable into the VoIP gateway and connect the device to a regular phone, users can easily take advantage of subscribed VoIP services such as caller ID, call waiting, call hold/resume, call transfer, call forward, 3-way conference and lifeline.



Digital Home Product Series

VoIP Gateway Feature Matrix

Model	NVG2053	P-2701RL/P-2702R
		
Description	Wireless N Gigabit VoIP Gateway	VoIP Gateway
Hardware		
WAN/LAN Port	1/4 (10/100/1000 Mbps)	1 / 1(10/100 Mbps)
FXO/FXS Port	1/2	P-2701RL: 1/1; P-2702R: 0/2
USB Port	1 for 3G WAN backup	-
WPS Button	Yes	-
Wireless On/Off Switch	Yes	-
WLAN Features		
Wi-Fi Standard	802.11b/g/n	-
Data Transfer Rate*	300 Mbps	-
QoS		
Class-based traffic prioritization by categories	Yes	-
8 level priority queues at WAN outbound interface	Yes	-
Support multiple WAN logical interfaces with different VLAN assignment	Yes	-
Ethernet port-based routing	Yes	-
802.1p/802.1Q VLAN tagging	Yes	Yes
VoIP Features		
Audio Codec	G.711, G.723.1, G.726, G.729, G.722	G.711, G723.1, G.726, G729
Supplementary Services	Call hold/resume, Call forward, Call transfer, Call waiting, 3-way conference	Call hold/resume, Call forward, Call transfer, Call waiting, 3-way conference
Fax	T.38, G.711	T.38, G.711
SIP Protocol	RFC3261	RFC3261
Dialing Plan	Yes	Yes
Caller ID	Yes	Yes
G.168	Yes	Yes
Multiple SIP Account	2	2
Voice Activity Detection	Yes	Yes
Comfort Noise Generation	Yes	Yes
Management		
TR069/TR104	Yes	Yes
Auto-provision	HTTP**/TFTP**	HTTP, FTP, TFTP
WAN Protocol	Static IP/DHCP/PPPoE/Bridge/L2TP**/PPTP**	Static IP/DHCP/PPPoE
Multicast		
IGMP v1/v2	Yes	-
Wizard Support	Yes	Yes

* The wireless data transfer rate is the theoretical maximum data transfer rate. The actual data transfer rate may vary depending on the network environment.

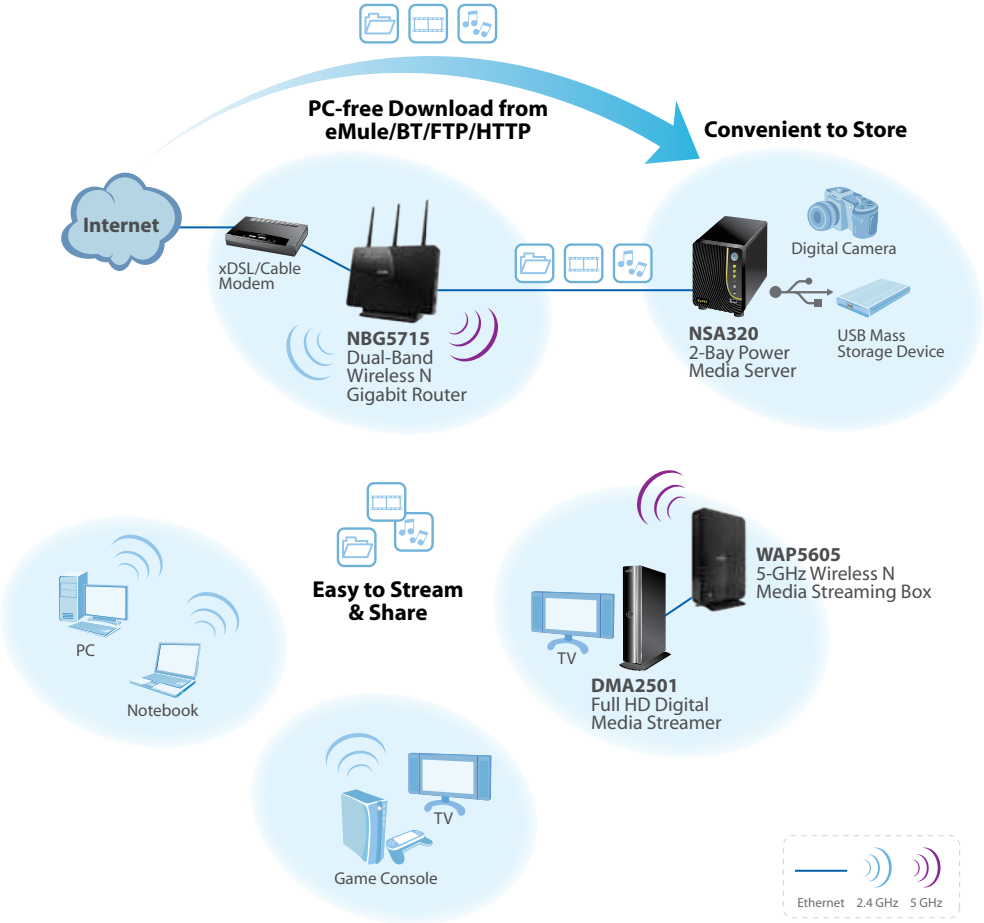
** Optional



Media Server & Digital Media Adapter — Enjoy Digital Entertainment Freely

The ZyXEL home entertainment solution consisting of media servers and digital media adapters bring enjoyable and reliable digital home entertainment anywhere in the house through the home network. No matter where you are in the house, you can easily store photos, videos, music and other media files on the media server and enjoy these files on HDTV or stereo system through digital media streamer without even powering up the PC. The powerful ZyXEL Media Server can quickly handle multiple simultaneous 1080p high-definition streams to different UPnP and DLNA-certified devices such as Microsoft XBOX360, Sony PS3 and DLNA TV in every room at home.

Home Entertainment Networking



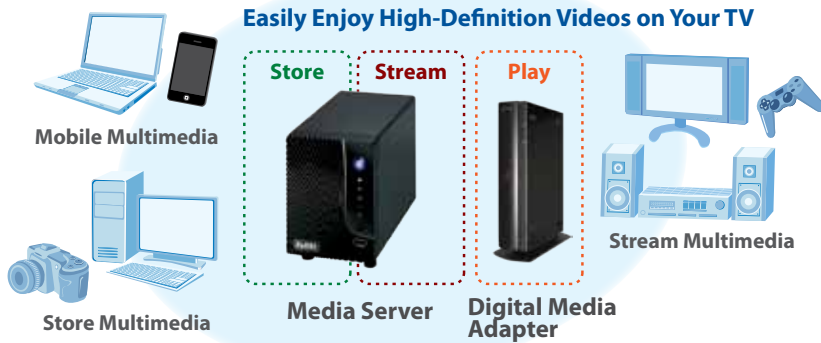
Digital Home Product Series

Benefits of Media Server & Digital Media Adapter



DLNA 1.5-Certified Media Server and Player

With DLNA-certified ZyXEL Media Server and Digital Media Adapter, you can play digital media collections through DLNA-capable clients at home such as TV and audio video system to enjoy music, photos and videos anywhere without complicated installation or setup.



Intuitive User Interface for Easy Organization

The comprehensive user interface of ZyXEL Media Server and Digital Media Adapter makes it easy and efficient to see photo slideshows, watch videos or listen to the music without a PC. You can easily manage the photos, videos and music through the user interface of media server that offers graphical icons instead of the command lines. Also, you can quickly preview the files through thumbnails and play them with the built-in media player.

The ZyXEL Media Server's zPilot™ is an automatic file classification function that enables users to easily store and manage media files through simple drag-and-drop actions. By dragging one or more files/folders to the zPilot™ shortcut on the desktop, the files are identified and delivered automatically to the music, photo, video or other designated folders on the media server.





Easy Multimedia Streaming

ZyXEL Digital Media Adapter supports media files in a wide range of music, photo and video formats. You can access digital contents stored on a media server in your living room without painstakingly converting file formats, and enjoy films with resolutions of up to 1080p on a HDTV with title support. With built-in access to Internet radio stations, the digital media adapter also provides a convenient way to enjoy thousands of real-time Internet radio stations.



Powerful Auto Downloading/Uploading to Free up Your PC

The ZyXEL Media Server supports automatic downloading without having to power up the PC. With a few simple clicks, users can easily set up the storage device to automatically run eMule/BitTorrent/FTP/HTTP downloading, or upload files to Flickr or YouTube. This is particularly useful for large and lengthy downloading or uploading and it's also an efficient way to save considerable power.

Runs Downloads Independent of PC



Auto-upload photos and videos



Digital Home Product Series

Media Server & Digital Media Adapter Product Spotlight



NSA320 2-Bay Power Media Server



Powerful HD Multimedia Streaming at Fingertips!

- Superior performance for simultaneous file transfers and multiple HD streams
- Faster data backup with NTFS support
- Intuitive user interface integrated with media player
- zPilot™ for media auto-classification through easy drag-and-drop
- Just click and select to enhance network application features easily
- Runs eMule/BitTorrent/FTP/HTTP downloads independent of PC
- Advanced green NAS with Wake-on-LAN, power scheduling and hard disk hibernation for energy savings



DMA2501 Full-HD Digital Media Streamer






Stream Full High-Definition Multimedia at Home

- DLNA 1.5-certified media streamer offers boundless media streaming and sharing everywhere at home
- HDMI 1.3a interface brings high-quality listening experience
- Intuitive user interface for click-and-play operations
- Supports rich media and subtitle formats for hassle-free enjoyments
- Easy access to thousands of free Internet radio stations
- Plug-and-play for all music, videos and photos in USB storage devices
- Compatible with ZyXEL's wireless N USB adapters for sharing media wirelessly

Digital Home Product Series

Media Server Feature Matrix

Model	NSA320	NSA221	NSA210 Series
			
Description	2-Bay Power Media Server	2-Bay Media Server	1-Bay Digital Media Server
User Interface	<ul style="list-style-type: none"> Intuitive user interface integrated with media player zPilot™ File Auto-Classification 		
Hardware			
Internal 3.5" SATA II	2	2	1
Max. Capacity (3.5" HDD)	4TB	4TB	2TB
USB Port	3	3	2
eSATA Port	-	-	1
Gigabit LAN Port	1	1	1
Kensington® Lock Security Hole	Yes	Yes	Yes
Reset Button	Yes	Yes	Yes
One-touch Copy/Sync Button	Yes	Yes	Yes
Smart Fan	Yes	Yes	Yes
LED Indicators	Power/System/LAN/HDD1/HDD2/USB/Copy	Power/System/LAN/HDD1/HDD2/USB/Copy	Power/System/LAN/HDD/USB/eSATA/Copy
Network Applications			
Gigabit JumboFrame Support	Yes	Yes	Yes
Media Server	<ul style="list-style-type: none"> DLNA 1.5 Certified media server, UPnP AV server 	<ul style="list-style-type: none"> iTunes server, SqueezeCenter support 	
Web Server	<ul style="list-style-type: none"> PHP/MySQL/PHP-My Admin Support RSS Server/Client Support (Broadcatching/Podcast) 	<ul style="list-style-type: none"> Photo album/blog server, Samba/FTP server 	
Upload/Download			
Upload Support	Auto-upload photos and videos to YouTube/Flickr/FTP Server		
Download Support	<ul style="list-style-type: none"> Auto-download from FTP/HTTP/BitTorrent/eMule 	<ul style="list-style-type: none"> Scheduled download 	
Backup	<ul style="list-style-type: none"> One-touch copy/sync button for external USB-capable devices backup PC to NAS backup (Memeo AutoBackup software) 	<ul style="list-style-type: none"> Backup planner: <ul style="list-style-type: none"> Instant/Scheduled backup NSA to NSA synchronization/archive backup NSA to external USB hard disk backup 	
Networking			
Protocols	<ul style="list-style-type: none"> TCP/IP FTP/HTTP Network Time Protocol (NTP) 	<ul style="list-style-type: none"> SMB/CIFS, NFS (Linux and Unix) DHCP Client PPPoE 	
Security	<ul style="list-style-type: none"> DyDNS Support IP Filter Control 	<ul style="list-style-type: none"> HTTPS/FTPES 	
System Management	<ul style="list-style-type: none"> Online Firmware Upgrade User/Group Management 	<ul style="list-style-type: none"> Hard Disk Failure Detection (S.M.A.R.T) 	
RAID			
RAID 0, 1, JBOD Support	Yes	Yes	-
Green Features			
Wake-on-LAN	Yes	-	-
Schedule Power On/Off	Yes	Yes	Yes
Internal HDD Hibernation	Yes	Yes	Yes

Digital Home Product Series

Digital Media Adapter Feature Matrix

Model	DMA2501
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Description	Full HD Digital Media Streamer
DLNA Standard	DLNA 1.5 Certified
Video Resolution	1080p
Digital Media Renderer Support	Yes
Intuitive User Interface	Yes

Hardware	
A/V output	HDMI 1.3a, Composite RCA, S/PDIF (Optical)
Ethernet Port	1 (10/100 Mbps)
USB Port	1 (for storage or 802.11n USB dongle)
Remote Control	1

Networking	
Wi-Fi Dongle Support	Compatible with ZyXEL NWD-211AN, NWD2105, NWD2205
Network Protocol	SMB/CIFS/NFS

Media Player Features	<ul style="list-style-type: none"> • Support Live365 Radio, SHOUTCast™ • Support Background Music • View Photos in Thumbnails Mode/Slideshow • Video Fast Forward, Rewind, Pause, Stop, Preview, Resume playing
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Media Formats and Subtitles Support	
Video Container	MPEG1/2/4, MPEG1/2 PS (M2P, MPG, DAT, VOB), MPEG2 Transport Stream (TS, TP, TRP, M2T, M2TS, MTS), AVI, ASF, WMV, MKV, MOV, MP4, RMP4
Video Codec	H.264, WMV9, VC1, MPEG 1/2/4, Xvid, AVC
Audio Container	AAC, M4A, MPEG audio (MP1, MP2, MP3, MPA), WAV, WMA, FLAC, OGG
Audio Codec	Dolby Digital, DTS, WMA, WMA Pro, MPEG-1 Layer 1/2/3, MPEG-4 AAC-LC, MPEG-4 HE-AAC, MPEG-4 BSAC, LPCM, FLAC, Vorbis
Image Format	JPEG, TIF/TIFF, PNG, GIF, BMP
Subtitles	SRT, SSA, IDX, SUB
DVD File Format	ISO, IFO

**Inspire Smart
Digital Lifestyle!**



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